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Axiom Space Selects Emiliano Ventura as Company's First-Ever Project Astronaut

Portuguese physiologist to test out research-driven human spaceflight training plan

IAC, SYDNEY, September 30, 2025 — Today, at the 2025 International Astronautical Congress, Axiom Space, a global leader in commercial human spaceflight and space infrastructure, announced Emiliano Ventura as its first-ever “Project Astronaut.”

Emiliano, a Portuguese physiologist, has developed a unique relationship with Axiom Space, having supported several crewmembers as their physiologist both before and immediately after their missions aboard the International Space Station. He now seeks to apply his expertise in optimizing human performance, honed through years of working with elite athletes, to a new “pilot program” aimed at testing a rigorous six-month astronaut training protocol. His goal is to participate in a future mission and explore, with scientific depth and curiosity, how the human body adapts to microgravity, contributing fresh insights to the current body of research in space physiology.

The training plan, tailored to Emiliano’s performance research, includes reduced gravity (parabolic flight), centrifuge, altitude chamber, expeditionary skills, outdoor leadership, high-performance jet aircraft, underwater helicopter escape, cargo/payloads, biomedical, and spacesuit operations training.

“I am honored to participate in Axiom Space’s first Project Astronaut initiative, combining my expertise in human performance with astronaut training,” said Emiliano. “This program not only advances scientific research but also inspires the people of Portugal and the global community to engage with the future of space exploration. Together with Axiom Space’s unparalleled resources and flight heritage, we aim to set new standards in preparing astronauts for the challenges of commercial human spaceflight.”

The program is designed to combine human performance research with operational training to contribute to future astronaut training programs. Supported by Axiom Space’s expertise and infrastructure, Emiliano will conduct research focused on physiological responses relevant to the context of microgravity, specifically in the physically demanding portion of preflight training, as well as the consequences and impact of the entire process. This ensures that the Project Astronaut contributes meaningfully to the scientific community and advances human knowledge as it relates to preparation for commercial human spaceflight.

“Project Astronaut embodies Axiom Space’s dedication to mission readiness and continuous improvement,” said Michael Lopez-Alegria, Axiom Space Chief

Astronaut. “Emiliano is the perfect candidate to lead this pilot program given his unique combination of expertise in human performance and extensive experience training previous crewmembers. By integrating his research into our training programs, we are enhancing our future astronaut corps’ capabilities both on the ground and in space. Astronauts Peggy Whitson, Koichi Wakata, and I will train alongside Emiliano every step of the way, with at least one of us participating in each training event. This initiative strengthens our commitment to enabling safe, effective, and inspiring commercial space missions while supporting scientific objectives worldwide.”

With this program, Axiom Space reinforces its role as the trusted enabler of commercial spaceflight missions within the global space community. Project Astronaut strengthens its recognition among governments, space agencies, researchers, and industry, highlighting the company’s capability to not only support astronaut training and elevate international space programs but to offer opportunities to individuals fulfilling scientific goals both on Earth and off-planet.

ABOUT EMILIANO VENTURA

Emiliano Ventura is the founder of PowerMotion Group, based in his home country of Portugal, and the Director of MSI Bioperformance in Madrid. Through these institutions, he leads a multidisciplinary team and oversees advanced training and recovery programs for elite athletes and astronauts. With over two decades of experience in high-performance environments, Emiliano works at the intersection of sports science, extreme environment performance, human physiology, motorsport, and space exploration, with a strong focus on applied research. He currently serves as a physiologist at Axiom Space, where he develops personalized protocols to prepare commercial astronauts for the physical and cognitive demands of spaceflight. Emiliano combines scientific precision with human insight to help individuals reach their full potential, whether on Earth or in orbit. He holds a Master’s degree in Human Functional and Physical Recovery from the Technical University of Lisbon and is deeply committed to making science practical, inclusive, and inspiring for the next generation of explorers.

ABOUT MSI BIOPERFORMANCE AND POWERMOTION GROUP

MSI Bioperformance is a specialized center for elite athletes and astronauts, offering state-of-the-art facilities in sports medicine, biomechanics, recovery, and performance simulation. Founded by sports scientists and physicians, MSI integrates advanced diagnostics, hyperbaric training, and cognitive stress testing to optimize human performance across disciplines. In partnership with PowerMotion Group, the two organizations provide personalized, high-level support for athletes competing at the top of their fields. PowerMotion focuses on understanding each athlete’s unique physiological profile and matching them with the ideal expert

team. Their integrated services include personalized performance evaluations, on-site injury treatment and rapid recovery, continuous support throughout training and competition, and tailored strategies in nutrition, biomechanics, and mental resilience. Together, MSI and PowerMotion represent a shared commitment to precision, care, and performance - helping athletes and astronauts unlock their full potential through science-driven, human-centered solutions.

ABOUT AXIOM SPACE

Axiom Space is building the world's first commercial space station – [Axiom Station](#). Serving as a cornerstone for sustained human presence in space, this next-generation orbital platform fosters groundbreaking innovation and research in microgravity, and cultivates the vibrant, global space economy of tomorrow. Today, driven by the vision of leading humanity's journey off planet, Axiom Space is the principal provider of commercial [human spaceflight](#) services to the International Space Station and developer of [advanced spacesuits](#) for the Moon and low-Earth orbit. Axiom Space is building era-defining space infrastructure that will empower our civilization to transcend Earth for the benefit of every human, everywhere. For more information, visit: <https://www.axiomspace.com/>.

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